

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) ~~A customer impact estimation system to evaluate impact to a customer by a revision of a technology process in microelectronics manufacturing~~, the system comprising:

an input/output device coupled to a user interface configured to accept a predefined search scope and a predefined search scheme;

a memory unit including a plurality of process documents and a plurality of technology files;

a processor, wherein the processor includes:

an extraction module, responsive to the user interface, configured to search the plurality of process documents and the plurality of technology files, wherein the extraction module determines at least one document within the predefined search scope and the predefined search scheme, wherein the at least one document is one of the plurality of process documents or one of the plurality of technology files; and wherein the extraction module is further configured to determine a customer who has accessed the at least one document and extract information of a customer who has used a microelectronics fabrication design technical documents database, wherein the design technical documents database includes information related to the technology process; and

an estimation module configured to analyze the information of the customer determined by the extraction module, and evaluate for the an impact to the customer by [[the]] a revision of the technology process, wherein the user interface is operable to provide a search result to a user as a visual depiction of the search result using a display monitor; and

a display monitor operable to provide the impact to the customer to a user as a visual depiction.

2. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 1, wherein the predefined search scope includes a period of time, a type of technology, and a physical region.

3. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 1, wherein the predefined search scheme includes document title, document number, vendor, maker, and end customer.

4. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 3 wherein the vendor comprises one of an electronic design automation (EDA) vendor, a chip service company, a library and intellectual property (IP) vendor.

5. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 3 wherein the maker comprises one of a photomask maker, a wafer manufacturer, a testing facility, and a packaging facility.

6. (Cancelled)

7. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 6, wherein the plurality of process document documents includes product specification document, design rule manual, and simulation model document.

8. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 6, wherein the plurality of technical file files includes a design-rule-check (DRC) document, a layout-versus-schematic (LVS) document, and a RC extraction document.

9. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 1 wherein the system is further connected to a virtual fab that is a network entity.

10. (Currently Amended) The ~~customer-impact-estimation~~ system of claim 9 wherein the virtual fab is further connected to at least one of [[a]] the customer, a vendor, a manufacturer, and a design group.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) The ~~customer impact estimation~~ system of claim 1 wherein the extraction module searches relevant documents according to the predefined search scheme.

14. (Canceled)

15. (Canceled)

16. (Currently Amended) The ~~customer impact estimation~~ system of claim 1 wherein the estimation module provides a list of a plurality of customers who are impacted by the revision of the technology process.

17. (Currently Amended) The ~~customer impact estimation~~ system of claim 16 wherein the estimation module further provides a list of customers who are impacted by the revision of the technology process according to a quantitative criteria.

18. (Canceled)

19. (Currently Amended) The ~~customer impact estimation~~ system of claim 1 wherein the estimation module further provides a suggestion for a communication with relevant customers, vendors, and makers for the revision of the technology process.

20. (Currently Amended) A computer readable medium, comprising computer readable instructions, that when executed by a processor, performing a method to evaluate an impact to a customer caused by a revision of a specific technology process in microelectronics manufacturing, the method comprising:

~~providing~~ receiving a search scope ~~[[to]] from~~ a user interface;

~~providing~~ a search scheme ~~[[to]] from~~ the user interface;

searching, according to the search scope and the search scheme, a microelectronics fabrication design technical documents database that includes information related to the technology process to determine a customer impacted by the revision, wherein the determination of the customer impacted by the revision including determining the customer has accessed a document of the microelectronics fabrication design technical documents database; and

providing a search result to a user as a visual depiction of the search result using a display monitor.

21. (Currently Amended) The ~~method~~ computer readable medium of claim 20 wherein the search scope includes one of a period of time, a type of technology, and a physical region of a customer.

22. (Currently Amended) The ~~method~~ computer readable medium of claim 21 wherein the search scheme includes one of a document title, a document number, a vendor, a maker and an end customer.

23. (Currently Amended) The ~~method~~ computer readable medium of claim 21 wherein the type of technology includes 0.25 μm and above, 0.25 μm to 0.15 μm , 0.15 μm to 0.09 μm , and below 0.09 μm .

24. (Currently Amended) The ~~method~~ computer readable medium of claim 21 wherein a period of time includes one of 3 months, 6 months, and 12 months.

25. (Currently Amended) The ~~method~~ computer readable medium of claim 22 wherein the vendor comprises one of an electronic design automation (EDA) vendor, a chip service company, a library and intellectual property (IP) vendor.

26. (Currently Amended) The ~~method~~ computer readable medium of claim 22 wherein the maker includes one of a photomask maker, a wafer manufacturer, a testing facility, and a packaging facility.

27. (Currently Amended) The ~~method~~ computer readable medium of claim 20 wherein the design technical documents database comprises one of design rule check (DRC) database, layout versus schematic (LVS) database, and RC extraction database.

28. (Currently Amended) The ~~method~~ computer readable medium of claim 20 wherein the searching is implemented by a customer impact estimation system connected to a virtual fab.

29. (Currently Amended) The ~~method~~ computer readable medium of claim 28 wherein the searching is implemented through the virtual fab, wherein the virtual fab is a network entity.

30. (Currently Amended) The ~~method~~ computer readable medium of claim 29 wherein the virtual fab is connected to at least a customer, a vendor, a manufacturer, and a design lab.

31. (Currently Amended) The ~~method~~ computer readable medium of claim 20 further comprising:

specifying a change of process wherein the change of process is associated with a technical document; and

verifying validity of the change of process according to a set of predefined rules.

32. (Currently Amended) A method to evaluate an impact to a customer caused by a revision of a specific technology process in microelectronics manufacturing, the method comprising:

specifying a change of process wherein the change of process is associated with a change to the fabrication of a semiconductor product and wherein the change impacts a parameter of a technical document;

verifying validity of the change of process according to a set of predefined rules;

providing a search scope;

providing a search scheme;

implementing a search of a plurality of microelectronics fabrication design databases according to the search scope and the search scheme;

determining an impact to a customer based on the search of the plurality of microelectronic fabrication design databases; and

making the change in the fabrication process. and

~~providing a result of the search as a visual depiction of the search result using a display monitor.~~